

No. 34.]

SUBTERRANEAN SURVEY

OF THE

Surrey and Kent District.

GENTLEMEN,

The first party commenced with the Surrey and Kent Sewers at the end of December, 1848, and they were increased to five parties at the end of January, 1849, as the work was gradually completed in the Westminster District.

Sixty-nine and one-eighth miles of sewers have been surveyed in the Surrey and Kent District, at an expense of 240*l.* 16*s.* 9*d.*, to the week ending 3rd of March, 1849.

The Surveyors find great difficulty in levelling the sewers of this district; for in the first place the deposit is usually about two feet in depth, and in some cases it amounts to nearly five feet of putrid matter. The smell is usually of the most horrible description, the air being so foul that explosion and choke damp are very frequent. On the 12th of January we were very nearly losing a whole party by choke damp, the last man being dragged out on his back (through two feet of black foetid deposit) in a state of insensibility. Another explosion took place on the 12th of February, in the Peckham and Camberwell Road Sewer; and one on the 21st of February, in the Kennington Road Sewer; in both cases the men had the skin peeled off their faces and their hair singed. Two men of one party had also a narrow escape from drowning in the Alscot Road Sewer, Rotherhithe, on the 24th instant, but fortunately none of the foregoing cases have been attended with serious damage.

The sewers on the Surrey side are very irregular; even where they are inverted they frequently have a number of steps and inclinations the reverse way, causing the deposit to accumulate in elongated cesspools.

It must be considered very fortunate that the subterranean parties did not first commence on the Surrey side; for if such had been the case, we should most

undoubtedly have broken down. When compared with Westminster, the sewers are smaller, and more full of deposit; and bad as the smell is in the sewers in Westminster, it is infinitely worse on the Surrey side.

The following are the cases most worthy of notice as far as the Survey has yet proceeded.

GENTLEMEN,

Your most obedient humble Servants,

HENRY AUSTIN, CONSULTING ENGINEER.
JOSEPH SMITH, ASSISTANT SURVEYOR.

DESCRIPTIVE REPORT

ON THE STATE OF THE SEWERS

IN THE

Surrey and Kent District:

Comprising the WESTERN, CENTRAL, and EASTERN DIVISIONS; with the Dates of Examination, Names of Streets, and Observations thereon.

WESTERN DIVISION.

Date.	Names of Streets.		Observations.
1849.			
Jan. 22.	WESTMINSTER BRIDGE ROAD, to Addington Street, passing under Collings and Co.'s Iron Manufactory		...This sewer is in a dangerous state. For the distance of 15 feet the side walls are gone; the timber covering on the top is supported by wooden props, which, together with the covering, are so rotten that the earth overhead is in danger of falling in.
Feb. 9.	SUTTON STREET.....		...In this sewer there is a man-hole in a dangerous state; the top, which has been covered with timber, is now decayed and falling away; (the earth appears firm, none of it having given way,) the dimensions uncovered are 4 feet 6 inches x 2 feet 7 inches, and 9 feet above the invert.
Feb. 7.	CORNWALL ROAD.....		...About .27 feet from side entrance at junction of Cornwall Place and Peer's Cooperage, there is a man-hole in a dangerous state; the timber covering is decayed and fallen away, which requires particular attention.
Feb. 17.	BROADWALL.....		...At the side entrance in Cross Street, there is 4 feet 9 inches of black liquid slush. There is a gate at this place which appears not to have been opened for a considerable time, and—in the leveller's opinion—accounts for the great accumulation of filth in this part of the sewer.
Feb. 17.	GRIFFIN STREET, opposite Granby Place		...Tubular house-drains have been laid; but from some cause the water and soil from several houses have no escape, and accumulate between the buildings to a great depth. The smell is of the most offensive description.
Feb. 21.	KENNINGTON ROAD.....		...A loud explosion took place in this sewer on the 21st of February, owing to gas generated from the depth of foul deposit.
March 3.	WANDSWORTH ROAD.....		...House No. 18 Chichester Place is in danger of falling, owing to a breach in the sewer of 10 feet long.
			A great number of sewers cannot yet be levelled in consequence of the great depth of deposit, the names of which are entered in the 'Complaint Book.'

CENTRAL DIVISION.

Date.	Names of Streets.		Observations.
1849. Jan. 26.	PRINCES ROW, Walworth Road		...The wall that supports the road—on the side of this open sewer—has in parts fallen in; the remaining part is in a dangerous state, and requires immediate attention; otherwise a great current of water might be dam'd up.
Feb. 12.	PECKHAM ROADSewer has about 1 foot 7 inches of deposit, at side of entrance opposite Peckham House. In

advancing towards Southampton Street, the deposit deepens to 2 feet 9 inches, leaving only 1 foot 11 inches of space in the sewer. At about 400 feet from entrance the first lamp went out; and 100 feet further on the second lamp (not being a safety one) created an explosion, and burnt the hair and face of the person holding it. The cause is supposed to be the foul and filthy state of the sewer.

Feb. 17.	COLD HARBOUR LANE, near Camberwell Green		...There is a side-entrance flap of the old construction, broken off the hinges and fixed up in a temporary way. It is in a dangerous state, and should be removed immediately.
Feb. 3.	CHARLOTTE STREET, New Cut		...There is a leakage from some water main in this street, which runs through the brick-work for about 8 feet in length, to the serious injury of the sewer. Reported to the Water Company the 6th February, 1849.
Feb. 10.	GREAT DOVER ROADThe man-holes occurring along this sewer at every 70 feet; being covered with timber, which

in many places is quite decayed and fallen in, leaving no support to the heavy weight of earth on the top. They are 6 feet long by 3 feet 6 inches wide. There would be much danger should any heavy vehicle pass over them. The man-holes are only 3 feet below the surface of the road.
A number of sewers in this division are too full of deposit to be levelled, the names of which are entered in the 'Complaint Book.'

EASTERN DIVISION.

Date.	Names of Streets.		Observations.
1849. Feb. 20.	ALSCOT ROAD, Rotherhithe		...This sewer is 4 feet x 2 feet 6 inches, with a deposit of 2 feet 6 inches and 3 inches of water. On the 20th inst. two men employed in the

surveying of this sewer were nearly drowned or suffocated by a great rush of steam and hot water from some of the adjacent tan-yards and the back water from the sluices. Their condition would have been rendered hopeless, but for the timely assistance of the remainder of the party overhead, who by ropes succeeded in dragging them out in a very exhausted state.

Feb. 24.	DEPTFORD ROADAbout 400 feet of open sewer, between Rolt Street and Surrey Street, is in a shocking state of filth. 230 feet in the rear of Evelyn Place in the same state.
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The public open drains are frequently without inverts, so that they are very irregular. A great number of sewers in this division cannot be levelled until cleansed, the names of which are entered in the 'Complaint Book.'

JOS. SMITH,
Assistant-Surveyor.